

CLAIMS

What is claimed is:

1. A method executed by a centralized sending device for distributing data to a plurality of receiving devices that are coupled to the backbone of the network of a
5 heterogeneous network, comprising:

receiving at the sending device a set of parameters representing the transmission characteristics of a backbone of the heterogeneous network;
adapting the data to conform to the set of parameters; and
transmitting the adapted data to at least one receiving device that is connected
10 to the backbone of the heterogeneous network.

2. The method of claim 1, further comprising receiving instructions that instruct the sending device to adapt the data according to the set of parameters.

15 3. The method of claim 2, wherein receiving the set of parameters occurs when there is a change in the set of parameters.

4. The method of claim 2, wherein receiving the instructions occurs when the sending device detects a change in the set of parameters.

5. The method of claim 1, further comprising receiving a request for the
data from the distribution means.

6. A method executed by a distribution device of adapting data according
5 to a set of parameters associated with a network segment that is downstream from
the distribution device, comprising:

receiving at the distribution device instructions, wherein the instructions
instruct the distribution device to adapt the data;
receiving the data from a sending device;
adapting the data to conform to the set of parameters associated with the
10 network segment; and
transmitting the adapted data along the network segment.

7. The method of claim 6, wherein adapting the data further comprises
15 adjusting a packet size of the data according to bandwidth restrictions of the network
segment.

8. The method of claim 6, wherein adapting the data further comprises
routing the data according to routing restrictions of the network segment.

9. The method of claim 6, wherein adapting the data further comprises replicating the data.

10. The method of Claim 6, further comprising transmitting the set of
5 parameters from the distribution means to a network administrator.

11. The method of claim 10, wherein transmitting the set of parameters occurs when the distribution means detects a change in the set of parameters.

10 12. The method of claim 10, wherein transmitting the set of parameters occurs when the network administrator detects a change in the set of parameters.

13. A system for transmitting data from a central source to a plurality of receiving devices where at least two of the receiving devices are located on disparate segments of a communications network, comprising:

a network device for distributing a plurality of sets of instructions, wherein each set of instructions is for adapting the data according to a set of transmission parameters associated with a segment of the communications network; and

a central server, comprising:

20 a receiver for receiving at least one of the sets of instructions from the network administration device;

a processor for implementing the set of instructions to adapt the data according to the transmission parameters associated with the segment; and
a transmitter for transmitting the adapted data to at least one distribution device along the segment.

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14. The system of claim 13, where the receiver is for receiving the set of transmission parameters.

15. The system of claim 13, wherein the set of transmission parameters

10 specifies bandwidth restrictions of at least one network segment that is downstream from the central server.

16. The system of claim 13, wherein the set of transmission parameters

specifies maximum transmission unit (MTU) restrictions of at least one network 15 segment that is downstream from the central server.

17. The system of claim 13, wherein the set of transmission parameters

specifies protocol restrictions of at least one network segment that is downstream from the central server.

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18. The system of claim 13, wherein the set of transmission parameters specifies routing restrictions of at least one network segment that is downstream from the central server.

5 19. The system of claim 13, wherein the set of instructions instructs the central server to replicate the stream of data.

10 20. The system of claim 13, further comprising a plurality of receiving devices each for receiving an adapted stream of data from at least one of the distribution means that are upstream from each receiving device.

15 21. The system of claim 13, wherein each distribution means further comprises:

a receiver for receiving the data and for receiving at least one of the sets of instructions that instruct the distributions means to adapt the data according to at least one of the sets of parameters;

a processor for implementing each received set of instructions; and a transmitter for transmitting the adapted data to at least one receiving device.

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22. The system of claim 21, wherein the transmitter is for transmitting the set of parameters to the network administrator.

23. The system of claim 22, wherein the processor is for detecting a change
5 in the set of parameters, whereupon the transmitter transmits the set of parameters.

24. The system of claim 22, wherein the transmitter transmits the set of parameters when the network administrator detects a change in the set of parameters.

10 25. The system of claim 21, wherein the transmitter is for transmitting a request to receive instructions.

15 26. The system of claim 21, wherein the transmitter is for transmitting a request to receive data.

27. The system of claim 21, wherein the processor is for addressing the data.

20 28. The system of claim 21, wherein the processor implements the instructions by adjusting a packet size of the data according to bandwidth restrictions of the network segment.

29. The system of claim 21, wherein the processor implements the instructions by routing the data according to routing restrictions of the network segment.

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30. The system of claim 21, wherein the processor implements the instructions by replicating the data.

31. A machine readable medium having stored thereon executable code which causes a centralized sending device to perform a method for distributing data to a plurality of distribution means that are coupled to the backbone of a heterogeneous network, the method comprising:

receiving at the sending device a set of parameters representing the transmission characteristics of a backbone of the heterogeneous network;
adapting the data to conform to the set of parameters; and
transmitting the adapted data to at least one distribution means that is connected to the backbone of the heterogeneous network.

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32. The method of claim 31, further comprising receiving instructions that instruct the sending device to adapt the data according to the set of parameters.

33. The machine readable medium of claim 32, wherein receiving the set of parameters occurs when there is a change in the set of parameters.

34. The machine readable medium of claim 32, wherein receiving the 5 instructions occurs when the sending device detects a change in the set of parameters.

35. The machine readable medium of claim 31, the method further comprising receiving a request for the data from the distribution means.

10 36. A machine readable medium having stored thereon executable code which causes a distribution device to perform a method of adapting data according to a set of parameters associated with a network segment that is downstream from the distribution device, the method comprising:

15 receiving at the distribution device instructions, wherein the instructions instruct the distribution device to adapt the data; receiving the data from a sending device; adapting the data to conform to the set of parameters associated with the network segment; and transmitting the adapted data along the network segment.

37. The machine readable medium of claim 36, wherein adapting the data further comprises adjusting a packet size of the data according to bandwidth restrictions of the network segment.

5 38. The machine readable medium of claim 36, wherein adapting the data further comprises routing the data according to routing restrictions of the network segment.

10 39. The machine readable medium of claim 36, wherein adapting the data further comprises replicating the stream of data.

15 40. The machine readable medium of claim 36, the method further comprising transmitting the set of parameters from the distribution means to a network administrator.

15 41. The machine readable medium of claim 40, wherein transmitting the set of parameters occurs when the distribution means detects a change in the set of parameters.

42. The machine readable medium of claim 40, wherein transmitting the set of parameters occurs when the network administrator detects a change in the set of parameters.